

CLAIMS

What is claimed is:

- 1 1. A method comprising:
2 identifying target objects on an electronic storefront Web site to which
3 customer traffic is to be targeted;
4 automatically generating search keywords for the target objects that are
5 identified; and
6 initiating purchase of the search keywords from one or more search partners.
- 1 2. The method of claim 1, further comprising:
2 receiving billing and keyword clickthrough data from the one or more search
3 partners; and
4 automatically determining a cost effectiveness of each of the keywords.
- 1 3. The method of claim 2, wherein the cost effectiveness of each keyword is
2 determined for each search partner on an individual search partner basis.
- 1 4. The method of claim 2, wherein the cost effectiveness of each keyword is
2 determined by:
3 calculating an average cost per click (CPC) value based on the billing and
4 keyword clickthrough data received from the one or more search partners;
5 monitoring customer session activities initiated in response to each keyword
6 clickthrough;

7 determining a margin per click (MPC) value comprising an average marginal
8 profit for each customer session activity initiated by a keyword clickthrough for each
9 keyword; and
10 comparing the MPC and CPC values for each keyword.

1 5. The method of claim 4, further comprising automatically deactivating a
2 keyword when it is determined to not be cost effective.

1 6. The method of claim 4, wherein the CPC and MPC values are compared for
2 each keyword at each of the one or more search partners.

1 7. The method of claim 1, wherein purchase of keywords is automatically
2 initiated by electronically interfacing with the search partner to exchange data
3 identifying the keywords to be purchased.

1 8. The method of claim 1, wherein identifying the target objects for which
2 keywords are automatically generated is performed periodically by a target discovery
3 process and comprises identifying any new target objects that have been added to
4 the Web site since the last time the target discovery process was performed.

1 9. The method of claim 1, further comprising:
2 automatically generating formatted search result data corresponding to at
3 least one keyword that is to be purchased; and
4 sending the formatted search result data for said at least one keyword to at
5 least one of the one or more search partners, and

including the formatted search result data are in search results produced by said at least one of the one or more search partners in response to searches corresponding to said at least one keyword.

10. The method of claim 9, wherein the formatted search result data is automatically generated by performing operations including:
creating a plurality of formatted search result templates;
selecting one of the plurality of formatted search result templates applicable for a given keyword and search partner; and
filling in the formatted search result template with information corresponding to a catalog item for which a corresponding keyword was automatically generated.

11. The method of claim 10, wherein the plurality of formatted search result templates includes templates that are particular to at least one of a product, a brand, and a product category.

12. The method of claim 9, wherein at least one formatted search result includes a destination URL containing embedded information identifying at least one of a product, brand, or category associated with the corresponding keyword.

13. The method of claim 9, wherein at least one formatted search result includes a price corresponding to a target object for which the keyword was automatically generated.

14. The method of claim 1, further comprising:
identifying target objects that were previously targeted for customer traffic that are related to catalog items that are either discontinued or currently unavailable; and

4 deactivating the purchase of any keywords corresponding to the target
5 objects that are so identified.

1 15. The method of claim 14, further comprising:
2 identifying target objects corresponding to items in the electronic catalog that
3 were previously unavailable but are now available; and
4 reactivating purchase of the keywords corresponding to those target objects.

1 16. The method of claim 1, wherein the keywords are purchased from a search
2 partner by sending a document to the search partner containing a list of keywords to
3 be purchased along with bids for keywords.

1 17. The method of claim 16, wherein the document comprises one of a
2 spreadsheet, database table, or an XML (extended markup language) document.

1 18. The method of claim 1, further comprising:
2 changing a purchase status of at least one of keyword with a search partner
3 by electronically interfacing with the search partner via a Web service.

1 19. The method of claim 1, further comprising:
2 receiving search result data from a search partner identifying search terms
3 used to retrieve search results containing links to target objects on the electronic
4 storefront Web site; and
5 including those search terms as part of the search keywords that are
6 purchased from the one or more partner sites.

1 20. The method of claim 1, wherein the target objects include at least one of a
2 product, brand, category, drug, and URL.

1 21. A method, comprising:
2 querying a catalog database hosted by an electronic storefront to identify
3 target objects to which customer traffic is to be targeted;
4 automatically generating search keywords for the target objects that are
5 identified; and
6 generating keyword purchase data for use in purchasing of the keywords from
7 one or more search partners.

1 22. A machine-readable medium having instructions stored thereon, which when
2 executed perform operations comprising:
3 identifying target objects on an electronic storefront Web site to which
4 customer traffic is to be targeted;
5 automatically generating search keywords for the target objects that are
6 identified; and
7 initiating purchase of the search keywords from one or more search partners.

1 23. A machine-readable medium having instructions stored thereon, which when
2 executed perform operations comprising:
3 querying a catalog database hosted by an electronic storefront to identify
4 target objects to which customer traffic is to be targeted;
5 automatically generating search keywords for the target objects that are
6 identified; and
7 generating keyword purchase data for use in purchasing of the keywords from
8 one or more search partners.

1 24. The machine-readable media of claim 23, wherein execution of the
2 instructions further performs operations including:
3 automatically generating formatted search result data corresponding to at
4 least one target object for which a keyword is to be purchased; and
5 including the formatted search result data in the keyword purchase data,
6 wherein the formatted search result data are to be included in search results
7 served by one or more search partners in response to a user search request that
8 includes at least one of the keywords.

1 25. The machine-readable media of claim 24, wherein execution of the
2 instructions further performs operations including:
3 selecting one of a plurality of formatted search result templates applicable for
4 a given keyword and search partner;
5 retrieving descriptive information from the catalog database descriptive of the
6 target object to which the given keyword corresponds and in consideration of the
7 search result template that is selected; and
8 filling in the formatted search result template with the descriptive information
9 to generate the corresponding formatted search result data.

1 26. The machine-readable media of claim 24, wherein execution of the
2 instructions further performs operations including:
3 generating a destination URL that includes embedded information identifying
4 at least one of a product, brand, or product category associated with a given
5 keyword; and
6 including the destination URL that is generated in the formatted search result
7 data for the given keyword.

1 27. The machine-readable media of claim 23, wherein execution of the
2 instructions further performs operations including:
3 processing billing and keyword clickthrough data received from the one or
4 more search partners; and
5 automatically determining a cost effectiveness of each of the keywords for the
6 one or more search partners.

1 28. The machine-readable media of claim 27, wherein execution of the
2 instructions causes the cost effectiveness of each keyword to be determined by
3 performing operations including:
4 calculating an average cost per click (CPC) value based on the billing and
5 keyword clickthrough data received from the one or more search partners;
6 retrieving data relating to customer session activities initiated in response to
7 each keyword clickthrough;
8 determining a margin per click (MPC) value comprising an average marginal
9 profit for each customer session activity initiated by a keyword clickthrough for each
10 keyword; and
11 comparing the MPC and CPC values for each keyword.

1 29. The machine-readable media of claim 23, wherein execution of the
2 instructions further performs operations including:
3 interfacing with a server operated by a search partner to change a purchase
4 status of an individual keyword.

1 30. An electronic storefront system, comprising:

2 a web server tier hosting a web-based front-end for the electronic storefront
3 via which customer users may interact with the electronic storefront via the Internet;

4 a database tier hosting at least one database instance in which electronic
5 catalog data and customer session data are stored; and

6 an application server tier, operatively coupled in communication with the web
7 server tier and the database server tier, including at least one server on which a
8 plurality of middleware software components are executed to perform operations
9 including:

10 querying the database tier to identify catalog items to which customer traffic is
11 to be targeted;

12 automatically generating search keywords for the catalog items that are
13 identified; and

14 generating keyword purchase data for use in purchasing of the keywords from
15 one or more search partners.

1 31. The electronic storefront system of claim 30, wherein execution of the plurality
2 of middleware software components further performs operations including:

3 automatically generating formatted search result data corresponding to at
4 least one catalog item for which a keyword is to be purchased; and

5 including the formatted search result data in the keyword purchase data,

6 wherein the formatted search result data are to be included in search results
7 served by one or more search partners in response to a user search request that
8 includes at least one of the keywords.

1 32. The electronic storefront system of claim 31, wherein execution of the plurality
2 of middleware software components further performs operations including:
3 selecting one of a plurality of formatted search result templates applicable for
4 a given keyword and search partner;
5 retrieving descriptive information from the database tier descriptive of the
6 catalog item to which the given keyword corresponds and in consideration of the
7 search result template that is selected; and
8 filling in the formatted search result template with the descriptive information
9 to generate the corresponding formatted search result data.

1 33. The electronic storefront system of claim 31, wherein execution of the plurality
2 of middleware software components further performs operations including:
3 generating a destination URL that includes embedded information identifying
4 at least one of a product, brand, or product category associated with a given
5 keyword; and
6 including the destination URL that is generated in the formatted search result
7 data for the given keyword.

1 34. The electronic storefront system of claim 30, wherein execution of the plurality
2 of middleware software components further performs operations including:
3 processing billing and keyword clickthrough data received from the one or
4 more search partners; and
5 automatically determining a cost effectiveness of each of the keywords for the
6 one or more search partners.

1 35. The electronic storefront system of claim 30, wherein execution of the
2 plurality of middleware software components causes the cost effectiveness of each
3 keyword to be determined by performing operations including:

4 storing data in the database tier concerning customer session activities
5 occurring during customer sessions that are initiated in response to customer
6 activation of clickthrough links contained in search results generated by the one or
7 more search partners

8 calculating an average cost per click (CPC) value based on the billing and
9 keyword clickthrough data received from the one or more search partners;

10 retrieving data relating to customer session activities initiated in response to
11 each keyword clickthrough;

12 determining a margin per click (MPC) value comprising an average marginal
13 profit derived from purchases made for each customer session activity initiated by a
14 keyword clickthrough for each keyword purchased from the one or more search
15 partners; and

16 comparing the MPC and CPC values for each keyword.

1 36. The electronic storefront system of claim 35, wherein the billing and keyword
2 clickthrough data include position information indicating the relative position of where
3 the search results containing a clickthrough link to the electronic storefront
4 corresponding a given keyword appear in the set of search results returned for that
5 keyword, and wherein execution of the plurality of middleware software components
6 further performs operations including:

7 determining a bid adjustment to be made to a keyword purchase bid for the
8 given keyword in view of the position information and comparison of the MPC and
9 CPC values.

1 37. The electronic storefront system of claim 30, wherein execution of the plurality
2 of middleware software components further performs operations including:
3 identifying any keywords that are determined to not be cost effective; and
4 generating keyword status update data to send to the one or more search
5 partners to deactivate purchase of the keywords that are determined to not be cost
6 effective.

1 38. The electronic storefront system of claim 37, wherein execution of the plurality
2 of middleware software components further performs operations including:
3 interfacing with a server operated by a search partner to change a purchase
4 status of one or more individual keywords based on the keyword status update data.

1 39. The electronic storefront system of claim 30, wherein execution of the
2 plurality of middleware software components further performs operations including:
3 querying the database tier to identify catalog items that were previously
4 targeted for customer traffic that are either discontinued or currently unavailable; and
5 generating keyword status update data to send to the one or more search
6 partners to deactivate purchase of the keywords that are so identified.